

**Amendments to the Specification:**

Please replace the paragraph bridging page 12 to 13 with the following amended paragraph (correcting “declosed” in the first line):

US Patent 5,595,243 ~~declosed~~ disclosed the use of a general purpose acoustic cleaning tool for improving the near wellbore permeability of producing formations by redissolving or resuspending restricting materials. The cleaning tool was reported to generate acoustic power densities of up to  $2 \text{ W/cm}^2$ , which is above the cavitation threshold for water at ambient temperature and pressure. See, US Patent 4,280,557. The tool, which consisted of an array of air-backed high power acoustic transducers of the type described by Widener, was designed to be deployed into the well on a wireline cable. See, Widener, M.W., "The development of high-efficiency narrow-band transducers and arrays", *J. Acoust. Soc. Amer.*, **67**, 1051-7 (1980); Widener, M.W., "The development of a deep submergence air-backed transducer", *J. Acoust. Soc. Amer.*, **80**, 1852-3 (1986). The transducers described by Widener would be expected to operate in the frequency range 10-100 kHz. US Patent 5,676,213 disclosed the use of high power ultrasound to remove the filter cake formed by the drilling fluid during the drilling of a well in order to measure the pressure in permeable formations. The high power ultrasound was generated by a focussing transducer operating in the frequency range 100-500 kHz and capable of operating at a peak input power of up to 1 kW. US Patent 5,727,628 disclosed an ultrasonic tool for cleaning producing wells. The wireline-deployable tool consisted of an array of magnetostrictive transducers operating in the frequency range 18-25 kHz (preferably at 20 kHz) and emitting an acoustic power density in the range 8-12  $\text{W/cm}^2$ . The tool was also equipped with a pump to remove the debris of the fouling deposits disaggregated by the ultrasonic tool. US Patent 5,735,226 disclosed a method to prevent the fouling of ships and other marine structures by the use of ultrasound over the frequency range 20-60 kHz. One demonstration of the technique was the location of a number of ultrasonic transducers on the hull of a ship over a period of 4 months. Over this time period the transducers, which were powered intermittently, gave effective relief from marine fouling. US Patent 5,735,226 revealed no details of the power consumption of the transducers, but one embodiment of the invention consisted of the array being powered by a 9 volt battery. US Patent 5,889,209 disclosed the use of high power ultrasound to prevent biofouling of chemical sensors used in aquatic environments. The ultrasound was generated

by a transducer operating in the frequency range 10-100 kHz and yielding a sufficient power density ( $> 0.1\text{-}1 \text{ W/cm}^2$ ) to drive acoustic cavitation. US Patent 5,889,209 disclosed the use of the acoustic cleaning technique to maintain the performance of a dissolved oxygen sensor located in microbiologically active water for seven days. The transducer was located over the range 4-10 mm from the active membrane of the oxygen sensor and activated for a time period of 6-90 seconds over a time interval of 5-120 minutes.

Please replace the second paragraph of page 16 with the following amended paragraph (correcting “outputs” in the second line):

The transducer is preferably designed to operate in the frequency range 10-250 kHz with a maximum acoustical power ~~outputs output~~ of 10-500 W. The maximum power is preferably only used during the cleaning process for less than 10 seconds or even less than 1 second. More preferably the frequency range is between 10kHz and 150kHz. The optimal frequency range is believed to lie within the range of 50 to 100 kHz. It was found that higher frequencies, particularly frequencies in the MHz region, are not applicable for permanent downhole deployment.